UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
AHMED, SALMAN

ART UNIT	PAPER NUMBER
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NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _10/6/2008_.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _____ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-8, 10-15,17,18 and 20-24_ is/are rejected.

7)☒ Claim(s) _9,16 and 19_ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _7/25/2007_ is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
        application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Claims 1-24 are pending.

Claims 9, 16 and 19 are objected to.

Claims 1-8, 10-15, 17, 18 and 20-24 are rejected.

Drawings

1.   The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "external device" in claim 6 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

the applicant will be notified and informed of any required corrective action in the next

Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

1.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of
> making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the
> art to which it pertains, or with which it is most nearly connected, to make and use the same and shall
> set forth the best mode contemplated by the inventor of carrying out his invention.

2.   Claims 1-11, 20, 21, 22, 23 and 24 are rejected under 35 U.S.C. 112, first

paragraph, as failing to comply with the written description requirement. The claim(s)

contains subject matter which was not described in the specification in such a way as to

reasonably convey to one skilled in the relevant art that the inventor(s), at the time the

application was filed, had possession of the claimed invention. Claim 1 states "at least

three packeting modules" implying there could be more than three packeting module.

However, "at least three packeting modules" was not described in the specification in

such a way as to reasonably convey to one skilled in the relevant art that the

inventor(s), at the time the application was filed, had possession of the claimed

invention. The relevant section in specification page 8 states: "In an example of

operation, the device of the invention includes three packeting modules 13". The

specification does not explicitly states there could be more than three packeting

modules. If the Applicant implies that the Figure 5 shows there could be more than three

packeting modules, it is not described in the specification in such a way as to

reasonably convey to one skilled in the relevant art that the inventor(s), at the time the

application was filed, had possession of the claimed invention.

3.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

4.   Claims 9 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

5.   Claims 16 and 9 state "approximately" which is not a positive recitation of the

claim limitation. It is unclear in the specification as to what does "approximately"

explicitly refer to. As such, claims 9 and 16 are indefinite for failing to particularly point

out and distinctly claim the subject matter which applicant regards as the invention.

6.   Claim 9 states "negligible" which is not a positive recitation of the claim limitation.

It is unclear in the specification as to what does "negligible" explicitly refer to. As such,

claim 9 is indefinite for failing to particularly point out and distinctly claim the subject

matter which applicant regards as the invention.

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 12, 14 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Applicant's Admitted Prior Art, hereinafter AAPA, in view of DeLuca et al. (US PAT

4860003, hereinafter DeLuca).

        In regards to claims 12, 14 and 17, AAPA teaches *a process for transmitting a*

packet of asynchronous data (page 2, line 8-11, In the field of data acquisition and

telemetry of flight testing installations, the numerical or digital data, conveyed on

continuous and cyclic messages, issued by acquisition and processing systems of the

prior art is stored in the FIFO (First in-First out) batteries as and when it arrives. The

data arrives in a totally asynchronous manner), *comprising the steps of: packeting, in a*

packeting module, asynchronous data into a packet during a packeting time (page 2,

lines 13-19, a module for packeting facilitates placing certain data from these FIFO

batteries according to a predefined order. It also facilitates enhancing this data with

elements of the relative date calculation type, data identification, and formatting of data,

etc. A packet thus obtained is therefore a group of data with a precise format and

containing data in a precise order. A module for packeting operates according to the

following succession of stages: 1) reception of data contained in the FIFO batteries

(dump), 2) start ofpacketing, 3) packeting, with sorting and data enhancement);

requesting, by a message composition module, packet when message composition

module needs packet; stopping packeting; composing a message comprising said

packet; and transmitting message during a message transmitting time, wherein step of

requesting is performed so that packeting time is greater than message transmitting

time (page 2 lines 22-25, page 3, lines 3-5, the operating cycle of the packeting module

is self-sustaining. When the message composition module needs a packet, it sends a request to the packeting module which transmits the packet if it is made up. Packetizing modue performs 4) end of packeting, 5) sending of the packet to a message composition module. This message composition module recovers, one after the other, the packets created by the packeting modules. A message is then made up of successive packets in a predefined order. Figure 3, shows packeting time is greater than message transmitting time i.e. TMS<<TP).

AAPA does not explicitly teach transmitting partial packets.

DeLuca in the same or similar field of endeavor teaches transmitting partial packets (column 7 lines 33-50).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate in AAPA method the steps of transmitting partial packets as suggested by DeLuca. The motivation is that time-sensitive connection loss and delay produced in transmission process of data is reduced by transmitting partial data; thus also making more efficient usage of buffer space and making the system more efficient and reliable. Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

3.   Claims 1-7, 18, 20, 21, 22, 23 and 24 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Applicant's Admitted Prior Art, hereinafter AAPA, in view of

DeLuca et al. (US PAT 4860003, hereinafter DeLuca) and Clauberg (US PAT 6735219).

        In regards to claims 1-4, 7, 18, 20, 21, 22, 23 and 24 AAPA teaches a process

for transmitting asynchronous data packets (page 2, In the field of data acquisition and

telemetry of flight testing installations, the numerical or digital data, conveyed on

continuous and cyclic messages, issued by acquisition and processing systems of the

prior art is stored in the FIFO (First in-First out) batteries as and when it arrives. The

data arrives in a totally asynchronous manner), comprising the steps of: starting a

packeting operation of asynchronous data in packeting module; receiving, in packeting

module, a message directly from a message composition module when the message

composition module needs a data packet; interrupting packeting operation based on

message; transmitting a packet of asynchronous data from packeting module formed

during packeting operation prior to interrupting step; and repeating steps of starting,

receiving message, interrupting, and transmitting thereby transmitting a plurality of data

packets: wherein message composition module directly receives packets outputted by

packeting module (pages 2 and 3, a module for packeting facilitates placing certain data

from these FIFO batteries according to a predefined order. It also facilitates enhancing

this data with elements of the relative date calculation type, data identification, and

formatting of data, etc. A packet thus obtained is therefore a group of data with a

precise format and containing data in a precise order. A module for packeting operates

according to the following succession of stages: 1) reception of data contained in the

FIFO batteries (dump), 2) start ofpacketing, 3) packeting, with sorting and data enhancement, 4) end ofpacketing, 5) sending of the packet to a message composition module. This message composition module recovers, one after the other, the packets created b3) the packeting modules. A message is then made up of successive packets in a predefined order. he operating cycle of the packeting module is self-sustaining. When the message composition module needs a packet, it sends a request to the packeting module which transmits the packet if it is made up, i.e. if stage 4 is finished).

AAPA does not explicitly teach transmitting partial packets.

DeLuca in the same or similar field of endeavor teaches transmitting partial packets (column 7 lines 33-50).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate in AAPA method the steps of transmitting partial packets as suggested by DeLuca. The motivation is that time-sensitive connection loss and delay produced in transmission process of data is reduced by transmitting partial data; thus also making more efficient usage of buffer space and making the system more efficient and reliable. Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

AAPA and DeLuca do not explicitly teach at least three packeting modules for processing packets. AAPA and DeLuca do not explicitly teach packeting modules are not directly connected to each other as in claim 2.

Clauberg in the same or similar field of endeavor teaches three packet processing units 11-13, 21-23 and 31-33 in figure 2b, which are not directly connected to each other.

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate in AAPA and DeLuca's method the steps of at least three packeting modules for processing packets as suggested by Clauberg. The motivation is that (as suggested by Clauberg, column 3 lines 21-26) when a distributor for distributing of the packets to several parallel, identical processing paths is used, then the advantage occurs that the packets can be distributed according to the process in a non-occupied processing unit or processing path, whereby a parallel processing is possible and therefore the entire processing system becomes faster. Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

In regards to claims 5 and 6, AAPA teaches a formatting module then facilitates setting the message in electrical format in the protocol used for the transmission (page 3 first paragraph).

In regards to claim 20, AAPA teaches the use of a number of data in the packet of asynchronous data equal to or less than 18 and one wrapping (see Table 1).

4.   Claims 8 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art, hereinafter AAPA, DeLuca et al. (US PAT 4860003, hereinafter DeLuca) and Clauberg (US PAT 6735219) as applied to claim 1 above and further in view of Robins et al. (US6430184B1, hereinafter Robins)

Regarding claims 8 and 10-11 AAPA, DeLuca and Clauberg disclose all the subject matter with the exception of TP>TT/2; TP=TT when TP>>TMS; TP=TBS.

Robins et al. discloses a cut-through mode of operation in which packeting is ended and data transmitted before the complete packet is realized, such that portions of a packet may be transmitted while other portions are still being received. In this mode, the time for packeting (TP) could equals the maximum delay allowable before transmitting of data (TT), or time for packeting (TP) is more than half of a total time for packeting the asynchronous data and for transmitting the message, or the time for packeting (TP) equals bus cycle time (TBC), thereby meeting the limitations of the claim (column 17 lines 29-45).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate in AAPA, DeLuca and Clauberg's method the steps of TP>TT/2; TP=TT when TP>>TMS; TP=TBS as suggested by Robins. The motivation is that time-sensitive connection loss and delay produced in transmission process of data is reduced by transmitting partial data; thus also making more efficient usage of buffer

space and making the system more efficient and reliable. Known work in one field of
endeavor may prompt variations of it for use in either the same field or a different one
based on design incentives or other market forces/market place incentives if the
variations are predictable to one of ordinary skill in the art.

5.   Claims 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable
over Applicant's Admitted Prior Art, hereinafter AAPA and DeLuca et al. (US PAT
4860003, hereinafter DeLuca) as applied to claim 12 above and further in view of
Robins et al. (US6430184B1, hereinafter Robins)

       Regarding claims 13 and 15 AAPA and DeLuca disclose all the subject matter
with the exception of TP>TT/2; TP=TT when TP>>TMS; TP=TBS.

       Robins et al. discloses a cut-through mode of operation in which packeting is
ended and data transmitted before the complete packet is realized, such that portions of
a packet may be transmitted while other portions are still being received. In this mode,
the time for packeting (TP) could equals the maximum delay allowable before
transmitting of data (TT), or time for packeting (TP) is more than half of a total time for
packeting the asynchronous data and for transmitting the message, or the time for
packeting (TP) equals bus cycle time (TBC), thereby meeting the limitations of the claim
(column 17 lines 29-45).

       Thus, it would have been obvious to one of ordinary skill in the art at the time of
the invention to incorporate in AAPA and DeLuca's method the steps of TP>TT/2;
TP=TT when TP>>TMS; TP=TBS as suggested by Robins. The motivation is that time-

sensitive connection loss and delay produced in transmission process of data is reduced by transmitting partial data; thus also making more efficient usage of buffer space and making the system more efficient and reliable. Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

Allowable Subject Matter

6.   Claims 9, 16 and 19 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Arguments

7.   Applicant's arguments see pages 7-10 of the Remarks section, filed 10/6/2008, with respect to the rejections of the claims have been fully considered and are moot in view of the new ground of rejections presented in this office action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SALMAN AHMED whose telephone number is (571)272-8307. The examiner can normally be reached on 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on (571) 272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Salman Ahmed/

Examiner, Art Unit 2419